DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014277 Address: 333 Burma Road **Date Inspected:** 06-May-2010

City: Oakland, CA 94607

34-0006

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Wu Chi Cheng **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Component: Orthotropic Box Girder (OBG)

Summary of Items Observed:

Bridge No:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD

Segment 8AE~8CE (CLIPS)

This Quality Assurance (QA) Inspector witnessed final tension verification for Catwalk at Bottom Panel from Panel Point (PP) 61 ~ PP 71 for Segment 8AE ~ 8CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00341 Dated May 6, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160001 and final torque required was 210 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160004 and final torque required was 180 N-m and

Bolt sizes used were M16 x 65 RC Set# DHGM160006 and final torque required was 180 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-114. Please refer the pictures for more comprehensive

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detail.

Segment #8AW~8BW

This QA inspector observed ZPMC qualified welding personnel identified as 037748 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW8B-005; ZPMC QC is identified as Mr.Zhang Hai Tao. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1. See the attached below Photo.

Segment # 8CE~8BE

Repair Welding.

This QA inspector observed ZPMC qualified welding personnel identified as 053753 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE7C-008 and was observed welding in the 3G (Vertical) position; The Welding Repair Report (WRR) was B-WR12848. ZPMC QC is identified as Mr. Wang Li Yang. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair-1.

Segment # Cross Beam 8

This QA inspector observed ZPMC qualified welding personnel identified as 220069 perform Flux Core Arc Welding (FCAW), weld joint identified as CB202A-008-016 and was observed welding in the 2G (horizontal) position; ZPMC QC is identified as Mr. Feng Ya Jun. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-TC-U4b-F.

Segment # 7BW-PP50

This QA inspector observed ZPMC qualified welding personnel identified as 066746 perform Flux Core Arc Welding (FCAW), weld joint identified as SEG035E-034 and was observed welding in the 3G (Vertical) position; ZPMC QC is identified as Mr.Feng Ya Jun. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2133.

Segment# BK1-034 (PP67)

This QA inspector observed, Heat Straightening Perform ZPM QC is identified as Mr. Wang Jie. The max Deformation is about 6mm Heat Straightening the width is 50 ~100mm. The variables recorded by QC appeared to comply with the Heat Straightening Report (HSR) was HSR1 (B) -8256 Rev-0 dated 2010-04-04. See the attached below Photo.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Prabhune, Manoj | Quality Assurance Inspector |
|----------------------|-------------------|-----------------------------|
| Reviewed By: | Patterson, Rodney | QA Reviewer |